New genera and species of Carabide from Tasmania; by H. W. Bates, F.L.S.

The following descriptions are founded upon the collections recently received in England from Mrr. Simson and Mr. Atkinson, who have made large additions to the knowlenge of the Coleopterous Fauna of Tasmania, the former in the Sonthern and Central districts of the Island, and the latter in the North. Mr. Alexander Fry lent me for the occasion, a fine series of species sent by Mr. Simson, and kindly presented me with examples of most of them.

## Percosoma sulcipenne.

Niger, nitidus; occipite transversim grosse pmétato : thorace cordato, antice minus rotundato-dilatato, angulis posticis subrectis: elytris oblongo-ovatis, humeris distinctis ibique et lateribus margine explanato-incrassato, post melium leviter ampliatis, apicem versim gradatim attenuatis ; supra striatis, striis versus marginem et apicem latis, granulato-opacis. Long. 26-30 mm. \% , 우.

Similar in general form to $P$. carenoides (White), but thorax much narrower, being less dilated immediately after the anterior angles; the base is depressed in the same way, and the sides parallel for a short distance preceding the nearly rectangnlar hind angles; the depressed part is rugulose, and the sides have a row of punctures bearing long sete. The elytra are striated throughout, the three strice nearest the suture being finely impressed, the others deperer and broader, and towards the apex all greatly widened and minutely granulate-opaque. . The fifth stria, near the base, has three large setiferous punctures. The head is similar in form to that of $P$. corenuifles, but the occiput bears a transverse row of three large setiforous punctures on each site, and the sulcus near the eyes is deeper ; the orbit behind the eyes forms a tomour nearly as large as the eve itself.

Northern 'Tasmania (Atkinson). Coll. H. W. Bates.

## Lychnus stramyulutus.

Elongato-ovatus, supra sub-planatus, nigerrimus politus: eapite mox pone oculos sulco profundo levi impresso ; foreis
frontalibus extus eurvatis, intus ramum brevem emittentibus: thorace cordato, antice vix rotundato-dilatato, post medium usque ad angulos posticos valde angustato, his rotundatis: elytris dorso planatis, striis vix conspicuis, interstitiis planissimis.

Femora antiea of sulbtus prope medium fortiter dilatata fere dentata ; of ovata modice incrassata. Loug. 19-21 mm. 千, 오.

Agrees with Mr. Putzeys' description of his genus Lychnus ; which, however, contains no mention of the remarkable constriction of the head behind the eyes. The present species must nevertheless, lee closely allied to $L$. ater. In five examples ${ }^{t}$, I fail to detect any trace of pmoctuation in the strix, and the latter are extremely faint, except near the apex, where they are more pronounced, owing to the elevation of the interstices. In one of the examples , however, the strix are distinctly punctured.

Central districts (Simson); North Tasmania (Atkinson). Coll. A. Fry and H. W. Bates.

## Lychnus striatulus.

L. strangulato simillimo, differt tantum statura minori elytrisque distinctius striatis interstitios eonvexis. Niger, minus nitidus ; elytris oblongo-ovatis, paullo angustioribus et supra minus planatis. Long. 17 mm . 。

Differs from L. strangulatus only in being smaller, proportionately narrower, and in the elytra heing more distinetly striated, or rather the feebly or not at all incised strix are separated by convex interstices. The strix have no traces of pmetuation. In its narrower, more oblong and convex form it resembles the \& of L. strangulutus more than the $\delta$; but both the specimens before me are clearly males, having the broad, sub-dentiform dilatation of the undersurface of the anterior tibia.

Central Tasmania (Simson). Coll. A. Fry and H. W. Bates. Mr. Janson has a thirl example.

A third speeies of Lychons, taken by Mr. Atkinson in Northern Tasmauia, is convex and punetate-striate in both sexes. This may possibly he the L. ater of Putzeys, if we may suppose that author to have overlooked the occipital strangulation.

## MIROSARUS, n. gen.

(Sub-Fam. Anisodactiline.)
G. Selenophoro similis. Corpus oblongo-ovatum. Caput antice obtusum ; foveis frontalibus parvis. Mentum fere edentatum. Ligula angusta, apice bisetosa, paraglossis eam superantibus, latis, auriculatis, ad lignix angulos superiores intus conjunctis. Palpi apice modice attenuati, truncati. Elytra interstitio tertio pluripunctato. Tarsi of, quatuor anteriores articulis 4 dilatatis ( $2-4$ late cordatis), plantis squami-setis erectis dense vestitis, scopam planam simulantibus.

Recent describers of Australian Hurpali, following the example of Dejean, have paid no attention to the shape and clothing of the dilated tarsal joints of the males, and have consequently mingled together in one gemus the most diverse generic forms, belonging even to distinct sub-families. The present very distinct genus is common in all the temperate parts of the country, and many closely allied species, races or varieties, have been described by Castelnan and W. Macleay, Jun. They may be known at once by their exact resemblance to the common American species of Selenophorlis. The emargination of the mentum has a scarcely perceptible angular prominence in the middle and is sometimes quite edentate.

## Mirosurns insularis.

Nigro-cupreus, antennis basi, palpis (partim) tibiis et tarsis fulvo-testaceis ; elytris $\delta$ nitidis, of sub-opacis: thorace transversim quadrato, lateribus arcuatis antice paullo magis quam postice angustato, angulis posticis rotundatis, margine postion medio late simuato, basi ntringue coriaceo-punctato, foveis latis; margine laterali reflexo, rufescenti : elytris ante apicem simmatis, supra aeute striatis, striolapue sentellari elongata, interstitios planis, 3,5 et 7 versus apieem cateris latioribus, tertio punctis umbilicatis sex conspicuis. Long. 9 mm .

The amoment of pale colonring on the basal joints of the antema and on the palpi is very variable; lut the scape is generally of a clearer red. The thome is much broader than long, and its sides are more arcuated than in allied species from Continental Australia, the widest lart heing a little anterior to the middle. The punctures of the third interstice are all situated in the middle of the interstier, and not near the strie.

South or Central 'Tasmania (Simson).

The species must be closely allied to the Harpalas marginicollis, of Castehau, from Melbourne, but he gives only three lines as the size.

## Ifypharpax pencticaudu.

Oblongus, fusco-cuprens ; antennis basi, palpis, tibiis et tarsis piceo-rufis, tibiis apice obscurioribus: thorace transverso, angulis obtusis fere rotundatis, lateribus leniter arcuatis, fover basali utrincue oblongo, subfortiter impressa : elytris apice oltusis, ante apicem sinuatis, striatis, interstitiis usque ad apicem planis, tertii puncto supra declivitatem posteriorem sito. \& Femora postica incrassata subtns haud dentata, tibiis Ilexuosis. Long. $s \mathrm{~mm}$.

Allied to If. arens (Dej.), but larger. Apparently also very near II. Norchollantlie (Castl.), which is described as having the "tibia very strongly arched," but the authow does not describe the form of the femora. He says the species is common near Melbourne, and a Melbourne Hyphurpax common in collections has the femora distinctly dentate beneath. The tibie in that species would be correctly described as "strongly arched"; but in II. puncticaudu they are not arched, but flexuons, especially towards the apex. The colour of the present species is dull coppery, often with an æneons tinge. With regard to surface polish there appear to be two forms of $\begin{gathered}\text {, }, ~ i n ~ o n e ~ o f ~\end{gathered}$ which the elytra are sericeous opaque (as nsual in 아 Hurpeli), and in the other more shining. The thorax is about equal in width at base and extremity, although the gentle arcuation of the sides seems to narrow the hind a little more than the fore part. There is a very short schtellar striole. The situation of the elytral puncture near the apex is not an uncommon character in IIyphurpace.

South or Central Tasmania (Simson).

> THENAROTES, n. gen.

## (Sub-Fam. Axisodactyline.)

Gen. Acupalpus et Bradycellus forma et coloribus similis ; at tarsorum 4 anteriorum plantis $2-4$ requaliter, dense synamipilusis ut in Anisuductylo. Corpus elongatum subdepressum. Capite antice obtusum, sulcis frontalibus extus ad oculum curratis. Palpi acuminati. Menti simus medio dentatns. ot Tarsi antici articulo primo lineari, vix dilatato, subtus nudo, $2-4$
late cordatis (in tarsis intermodiis angustioribus), plantis dense syuami-pilosis.

Closely aflied to Lecromorns (Chand.) from which it differs only in the lesser dilatation of the four anterior of tarsi, and in the more elongate and latter body, which gives the species quite a different facies. In Leconomerus the first joint of the clilated male tarsi is not expanded like the 2-4th; but it is much shorter and less linear than in Thenurotes. The Lecanomeri are shorter, more ovate and convex. Both genera are numerous in species in Anstralia, Lecrnomerus extending also to New Zealand. Lecunomerus marginutus (Reed) of Chili, belongs to Thenarotes rather than to Lecanomerts.

## Thenarotes Tasmanicus.

Brorlycello Verbasci (Dufts) similis ; at paullo magis elongatus ct depressus. Rufo-testaceus, nitidus, antennis, palpis et pedibus pallidioribus; elytris utringue plaga elongata post medium nigra subiridescenti : thorace cordato-quadrato, antice longe rotundato, postice paullo ante basin subsimutim angustato, angulis posticis obtusis, margine basali utringue ohliono. foveis basalibus latis grosse punctatis: elytris oblongis, fortiter striatis, absque striola scutellari, interstiitis convexis, tertio pone medium unipunctato. Long. $4 \frac{1}{2}-5 \mathrm{~mm}$.

South or Central Tasmania (Simson). In Mr. Janson’s collection and my own.

## Oopterus T'usmanicus.

Drimostomes?'Gsmanica, Castelnau, Notes on Austr. Col., Tr. Roy. Soc. Vict. ii, vol. s, 1. 199.

A small glossy insect, taken by Mr. Simson, with ovate, almost gibbous elytra, ohsoletely striated, agrees very well with Castelnau's description. It has a pubescent third antennal joint and acuminate palpi, agrecing in these and in others respects with the genus Oopterms. The mandibles are long and slender, the forchead has two long straight furrows, and the thorax is deeply and broadly impressed on each side of the hase, with a carina near the hind angle. The elytra at the apex have a strongly raised carina in the position of the seventh interstiee, on the imner side of which is the trace of a recurved striole connected along the apex with the sutural stria. The second antennal joint is nearly as $\mathrm{l}_{\mathrm{c}} \mathrm{ng}$ as the third.

## Trechus Diemenensis.

Sub-elongatus, depressus, thorace relative parvo, quadrato; subtus piceo-rufo, ventro rufo-testacen ; capite thoraceque rufocastaneis, elytris nigro-piceis, palpis et pedibus flavis, antennis rufo-testaceis ; thorace quadrato, antice leviter rotundato, postice paullulum sinuato-angustato, angulis posticis rectis, ibique margine explanato-reflexo, margine basali utrinque obliquo, foreis basalibus magnis, lævibus: elytris oblongo-ovatis, humeros versus haud angustatis, punctulato-striatis, diseo utrinque bipunctato. Long. 5 mm .

South or Central Tasmania (Simson).
Similar in general shape to such species as $T r$. palpalis; but the thorax is relatively smaller, and the explanated and reflexed lateral margins, especially towards the hind angles, amply distinguish it.

## Rhabdotus flovidus.

Elongato-oblongus, capite thoraceque supra viridi-æneis, elytris læte purpureis sericeo-nitentibus; palpis rufis, gracilibus, articulis ultimis apice paullo attenuatis; capite ovato, oculis haud promiunlis : thorace quadrato, postice quam antice latiori, angulis posticis acutis: elytris oblongis, fere parallelis, apice valcle obtuse rotundatis, supra striatis, interstitiis parllo convexis tertio post medium $2-4$ punctato: corpore subtus, antennis pedibusque nigris, tibiis et tarsis rufescentibus. Long. 17-21 mm. ㅎ, 우.

Distinguished from Rhabdotus reflexus (Chaud.) by the rich miform purple colowr of the elytra; similar in shape and in the striated upper surface of the tarsi and the form of the palpi. The eyes are encased behind by an orbit longer than themselves; the frontal furrows are broad, but not deeply incised. The thorax is nearly as long as broad, narrowed to the front and very gradually and slightly narrowed behind, with the hind angles acute; the lateral rims are thick and the margins reflexed and explanated towards the hind angles; the base is transversely depressed. Jead and thorax are glossy, brassy-green. The elytra are very obtusely romded at the apex (most so in the 8 ) and the margin is lont slightly simate before the apex; the striæ are moderately sharply impressed. In certain lights the rich purple colour changes into golden.
(Atkinson),

## Notonomus tubericaula.

N. politulo (Chand), aftinis, elongatus, niger politus; thorace fere quadrato, angulis posticis sumbectis; elytris apiee distincte simutis, hmmeris hand dentatis, supra fortiter, simpliciter striatis, interstitiis prope apicem angustioribus, tertio excepto dilatato et in + valde tuberoso. Long. 16 mm .

Glossy-black, without iridescence: palpi, terminal joint of the autcnne and tarsi pitchy-rect. Ilcad oval, eyes scarcely prominent and encased behind in an orbit one half their size: frontal suki shallow, rest of heal smooth. Thorax nearly quadrate, rather broader than long, sides slightly romaded near the middle, thence nearly straight to the hiur angles which are obtuse thongh distinct ; surface polished, smonth, basal forea on each side long and moderately deep, Elytra oblong in of with sides slightly rounded, more ovate in $\circ$ with sides strongly romuled; distinetly sinnate near the apex, humeral fold arcuated and not projecting at the shoulder; strix deep and interstices nearly plane, but becoming much deeper, with interstices narrower towards the apex ; the third interstice has two large punctures, the postcrior of which (near the apex), is the centre of a dilatation, slightly elevated in the $\delta$, lout raised into a prominent tuberele in the $q$.

## South or Central Tasmania (Simson).

Mr. Simson had tieketed the males and females as separate species.

## Lestignathus Simsoni.

L. cursori (Erichs.) multo minor. Elongato-ovatus, gracilis, antenuis palpis pedibusque plus minusve rufo-piecis; capite angusto, oeulis prominulis: thorace quadrato, antice modice rotundato, post medium leviter augustato ; angulis posticis rotundatis: elytris oblongo-ovatis, mox pone humeros leviter rotundato-dilatatis, medio iterum paullulum contractis, apicem versus longe simuatim-angustatis, apice productis juxta suturam rotundatis; supra acute striatis, interstitiis planis, tertio : :-punctato. Long. 11 mm .

Differs from $L$. cursor, besides its very much smaller size, hy the shape of its heat, due to the greater romdness and prominence of the eyes. The mandibles also are longer and more shonder, and the innor dentiform pommence before the apex is smatler and sharper. The thome is of the same shape, but rather shorter; as in $J$. enrsor, it is fuadrate, gently
rounded, the greatest width being a little before the middle, and posteriorly slightly sinuate and narrowed to the romded hind angles. The elytra are conspicnonsly sinnated towards the apex, and the latter is produced (although rounded near the sutural angle); in $L$. cursor, there is no trace of this peculiar formation.

South or Central Tasmania (Mr. Simson). (oll. A. Fry and H. W. Bates.

The genus Zargus, Wollaston, Insecta Maderensia, P. 31 (1854) is closely allied to, if not identical with, Lestignut/us, Er. (1842).

## Scopodes Tasmanicus.

Oblongus, omnino niger, elytris fortissime sericeo-micantibus; labro antice triangulariter valde prodncto, apice obtuso, convecor, lavi : capite supra minus recte striolato: thorace valde transverso, quadrato, angulis anticis rotundatis, posticis obtusis, marginibus anticis et posticis medio panllo rotundatis, lateralibus medio sinuatis; supra subtiliter transversim striolato: elytris ollongis, humeris distincte sed obtuse angulatis, apice leviter sinuatim truncatis, supra læte undulato-sericeis utrinque 3 foveolatis, striis latis vage impressis. Long. 6 mm .

A large, oblong, rather parallel-sided species, distinguished from all others known to me by the broad and short, quadrate thorax. The eyes are very large and protuberant ; the labrum strongly advanced in the middle, the obtuse point reaching beyond the mandibles when closed. The thorax equals in width the head (with the eyes), and is but slightly narrowed behind. The anterior margin (like the posterior) is a little arcuated forward in the middle; the anterior angles are rounded, the lateral margin before the middle gradually and very slightly sinuated, the hind angles being distinct but obtuse and reflexed. The whole insect is deep, black, brightly shining beneath, and extremely lustrous or satiny on the elytra.

Generally distributed (Simson, Atkinson).
Mr. Simson has sent also a single example of the apparently rare Scoqodes boops (Erichson).

DIABATICUS, n. gen.
Gen. Pimacorlere similis et affinis, sed tarsis Gen. Plochioni et rapite Gen. Xanthophece. Corpus glabrum. Caput elonga-
tum, orbitn post-oculari rotundato-angustato, collo distincto. Ligula bisetosa. Palpi labiales of secmiformes, modice dilatati. Mentum sinn maxime dentato. Antenm articulo Bio glatro. Thorax margine postico late sed breviter lobato. Elytra elongata apice valde obtusa, vix truncata; interstitiis sparsim punctulatis, tertio bipunctato. 'T'arsi supra glabri, depressi, articulo 4to breviter emarginato, Eto basin versus hand gradatim attenuato ; ungues fortiter denticulata; of anteriores articulis tribus, intermedii articulis duobus, subtus biseristion squamulatis.

A genus formed for the reception of Plochiomus australis (Erichson) ; which Baron Chaudoir, apparently not having seen in naturi, placed doubtfully as a synonym to his Tanthophea picipennis; but which has none of the distinctive characters of the group to which Xanthophata belones ; the ligula being bisetose, and the tarsi glabrons above \&e. The position of the genus scems to be near the American group Pinacodoru, and Erichson's species has, in fact, great resemblance to $P$. punctigera. The tarsi are, however, flattened and hroarlened as in Plochionns pallens, and the form of the head is that of Yanthophoa.

## Diabaticus australis.

Plochionus id., Erichson, Beitr., Insectenfama v. Vandicm., p. 124.

South or Central Tasmania (Simson). Coll. A. Fry and II. W. Bates.

In addition to the above, the following previonsly described species have been sent to England by Messrs. Simson and Atkinson:-

Scaraplites Macleayi, Westw.
Clivinu - a species elosely allied to Cl . Anstralasior
(Boh.), probably a small form of it.
I'romecoderns brunnicomis, Dej.
morlestus, Casteln.
", ovicollis, Casteln.
:, gibbosus, Gray.
Percosoma carenoüdes, White.
Notonomus politulus, Chaud.
chalybers, Dej.
Cenens coracinus, Erichs.

Hormochilus monochrous, Chand.
Leptopodus sollicitus, Erichs. Rhabdotus reflexus, Chaud.
Rhytisternus cyathoderus, Chaud.
Drimostoma? alpestris, Casteln.
Simodontus elongatus, Chaud.
Dicrochile punctipennis, Castelı.
Lestignathus cursor, Erichs.
Cyclothorax ambiguns, Erichs.
Dyscolus dilatatus, Erichs.
Amblytelus curtus, Fab.
IIomethes sericens, Erichs.
Philophlcus austiolis, Dej.
Agonochila corticalis, Chand.
", binotata, Chaur.
", biguttatu, Chaud.
Sarothrocrepis corticalis, F.
Tanthophera infuscata, Chaud.
Sphallomorpha decipiens, Westw. Aclelotopus hemormovidulis, Erichs. Scopodes boöps, Erichs.

